

**IN THE CLAIMS:**

Claims 1-12. (Cancelled).

13. (Previously presented) A method of producing pertussis toxin, comprising cultivating *Bordetella pertussis* bacteria that lack cysteine desulfinase activity; and isolating the toxin from the media.

14. (Previously presented) The method according to claim 13, wherein the *Bordetella pertussis* bacteria are mutants having an DNA sequence integrated into a *Bordetella pertussis* cysteine desulfinase gene.

15. (Previously presented) The method according to claim 14, wherein the mutant is strain BP536pWY.

16. (Previously presented) The method according to claim 13, wherein the *Bordetella pertussis* bacteria are cultivated in the presence of cysteine desulfinase anti-sense sequences.

17. (Previously presented) The method according to claim 16, wherein the anti-sense sequences are 8 to 15 bases in length and complementary to a nucleotide sequence set forth in SEQ ID NOS: 8-12.